To: Arguto, William[Arguto.William@epa.gov]; binetti, victoria[binetti.victoria@epa.gov]
From: Gray, Wendy
Sent: Wed 2/5/2014 11:52:25 AM
Subject: Fw: MCHM & PPH Product TICs
SVOA.rtf

From: Warner, Sue
Sent: Tuesday, February 04, 2014 5:21:12 PM
To: Gray, Wendy
Cc: Caporale, Cynthia
Subject: RE: MCHM & PPH Product TICs

See comments in red below.

From: Gray, Wendy
Sent: Tuesday, February 04, 2014 1:04 PM
To: Warner, Sue
Subject: FW: MCHM & PPH Product TICs

Sue,

Can you help with response to Eric's questions about the preliminary VOC and SOC TIC lists:

Has it been determined that that each of the peaks can be attributed to an isomer of dipropylene glycol phenyl ether? Each of the 4 DiPPH peaks have masses 59 and 94 in their spectra and it is possible that they are isomers.

Also, how many peaks are being observed for cyclohexanemethanol? One. Do you mean the crude MCHM? For the crude MCHM, we saw 6 peaks, see attachment and peaks labeled as Eastman.

Is the analysis able to separate the cis and trans isomers? Yes Yes

Thanks.

Wendy

From: Weber, Eric
Sent: Tuesday, February 04, 2014 10:46 AM
To: Gray, Wendy; Magnuson, Matthew; Allgeier, Steve; Hedrick, Elizabeth; Arguto, William
Cc: Sayles, Gregory
Subject: RE: MCHM & PPH Product TICs

Wendy,

I have a couple of questions concerning the compounds listed below in Mathew's email. It is mentioned that dipropylene glycol phenyl ether has 4 peaks. Has it been determined that that each of the peaks can be attributed to an isomer of dipropylene glycol phenyl ether? Also, how many peaks are being observed for cyclohexanemethanol? Is the analysis able to separate the cis and trans isomers?

Thanks,

Eric

From: Gray, Wendy
Sent: Monday, February 03, 2014 11:56 AM
To: Magnuson, Matthew; Weber, Eric; Allgeier, Steve; Hedrick, Elizabeth; Arguto, William
Cc: Sayles, Gregory
Subject: RE: MCHM & PPH Product TICs

Matt,

The list that you have would be our preliminary list of chemicals in the tank with the exception that there was one more unknown identified by the VOC analysis:

Unknown, masses, masses 79, 94, 55 and 67

I think that there are really two questions that need to be answered.

1) What are potential TICs associated with chlorine disinfection of the list of preliminary chemicals in the tank?

2) Description of formaldehyde, reasons that it may have been found in drinking water, and likelihood of formation as byproduct of disinfection.

Based upon Eric Weber's email from earlier this morning, it looks like he may be getting some good traction at least on the first topic. Matt, can you talk directly with Eric to discuss the status of the two questions. Could potentially have you both divide and conquer, if already working on different aspects of the question.

I am going to tentatively set a call for tomorrow afternoon (first available time to collectively gather this distribution list), but there is a briefing tomorrow morning that may or may not make this discussion necessary/relevant.

Thanks!

Wendy Gray, P.E.
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Fax: (215) 814-2302
Gray.Wendy@EPA.gov

From: Magnuson, Matthew
Sent: Monday, February 03, 2014 11:10 AM
To: Weber, Eric; Gray, Wendy; Allgeier, Steve; Hedrick, Elizabeth; Arguto, William
Cc: Sayles, Gregory
Subject: RE: MCHM & PPH Product TICs

Wendy,

Are you asking about more detail on the compounds marked "possible" and "unknown" in the list you sent, which I've pasted below?

Or for other chemicals that might be there based on the manufacturing processes for the CHM and the PPH?

Both are rather difficult questions based on the provided MSDSs and the table below, and will always have some large uncertainties. The situation is further complicated by not knowing what that tank has been used for over the years, or even recently. We didn't even know about the PPH for a while.

Is there a specific question we can focus on? For instance, --whether the list below is reasonable? –are there other analysis or reanalysis of the extract that might be beneficial? –a description of alternative ways formaldehyde could end up in the drinking water sample other than coming from something in the tank? –a description of difficulties with formaldehyde analysis?

Thanks.

Matthew

Compound	CAS number	MSDS
Cyclohexanemethanol	100-49-2	Eastman
Cyclohexanemethanol, 4-methyl-, trans-	3937-49-3	Eastman
Cyclohexanemethanol, 4-methyl-, cis-	????	Eastman
Cyclohexanecarboxylic acid, 4-methyl-, methyl ester	51181-40-9	Eastman
1-phenoxypropan-2-ol (PPH) (propylene glycol phenyl ether)	770-35-4	Dow
Possible 1,4-cyclohexanedimethanol	105-08-8	Eastman
A compound similar to Ethanol, 2-(4-methylphenoxy)-	NA	Dow?

1,4-Cyclohexanedicarboxylic acid, dimethyl ester (Dimethyl 1,4-cyclohexane dicarboxylate)	94-60-0	Eastman
Dipropylene glycol phenyl ether (4 peaks)	51730-94-0	Dow
Unknown, masses 108, 107 and 166	NA	
Unknown, masses 121, 59, 91and 134	NA	
Unknown alcohol, masses 59, 135 and 107	NA	
Unknown alcohol, masses 59, 135 and 94	NA	
Unknown alcohol, masses 59, 135 and 107	NA	
Unknown alcohol, masses 59, 135 and 107	NA	
Unknown, masses 59, 135, 107 and 161	NA	

- Eastman = Eastman MSDS for Crude MCHM 10-19-05
- Dow = DOW MSDS for PPH, Basic, 11-15-11

From: Weber, Eric
Sent: Monday, February 03, 2014 10:02 AM
To: Gray, Wendy; Allgeier, Steve; Magnuson, Matthew; Hedrick, Elizabeth; Arguto, William
Subject: RE: MCHM & PPH Product TICs

Wendy,

I should be able to get the list of chemicals thought to be in the tank out perhaps this afternoon, more likely tomorrow morning.

Eric

From: Gray, Wendy
Sent: Monday, February 03, 2014 9:39 AM
To: Weber, Eric; Allgeier, Steve; Magnuson, Matthew; Hedrick, Elizabeth; Arguto, William
Subject: MCHM & PPH Product TICs

Good morning,

Just wanted to check in primarily with Matt and Eric, to see how we are coming along with possible tentatively identified compounds associated with the contaminants related to the incident?

Thanks for your help!

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